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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,961	11/16/2001	Toshiyuki Waida	024938-00001	7887

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EXAMINER

MARIAM, DANIEL G

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/987,961

Applicant(s)

WAIDA ET AL.

Examiner

DANIEL G. MARIAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-7 and 11-20 is/are rejected.
- 7) ☒ Claim(s) 2-4 and 8-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Arguments

1. Applicant's arguments, see page 12 of the remarks, filed February 28, 2005, with respect to the rejection(s) of independent claim(s) 1, 7, 13 and 17 under 35 USC 102 (e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Driscoll, JR. et al. (5,067,162) which will be discussed in the rejection below.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 5-7, 11-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Driscoll, Jr. et al. (5,067,162).

With regard to claim 1, Driscoll, Jr. et al. (hereinafter "Driscoll") discloses a storage section in which data related to said predetermined pattern, i.e., template/reference image, is stored (Item 78, in Fig. 6); a first collation section, item 10 or 50, for making comparison and collation between data related to an image in a first area, i.e., wide search region, item 112, in Fig. 15, greater than an area of said predetermined pattern, i.e., primary reference section, item 110, in Fig. 15, in said image and said data related to said predetermined pattern (col. 16, lines 20-49); a cutting section for cutting out a second area smaller than said first area from said first area (this feature is considered inherent, because initially some location (or arbitrary location) in the wide region of the verify fingerprint image considered to find the best-match location, and

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the other or next location of the verify fingerprint is further considered until the entire region is completed. What this means is that, the wide region would get smaller and smaller as more locations of the verify fingerprint in the wide region is processed) until the entire region is completed) based on the result of comparison carried out by said first collation section, a second collation section, i.e., item 10 or 50, for making comparison and collation between data related to an image in said second area and said data related to said predetermined pattern (item 114, in Fig. 15. Please note, given the broadest reasonable interpretation, the claimed invention, i.e., predetermined pattern, does not identify the predetermined pattern used in the first and second collation sections, as being the same or different), and an identification section, i.e., evaluate results and classify as reject or accept, for identifying said predetermined pattern contained in said image based on the result of comparison carried out by said second collation section (an identity of the person is verified by correlating the fingerprint images: See for example, col. 17, lines 15-68; and Fig. 6).

With regard to claim 5, the pattern identification apparatus according to claim 1, wherein said storage section stores a plurality of kinds of different patterns, i.e., ridge, valley, etc, patterns to be identified (See for example, col. 16, lines 49-53).

With regard to claim 6, the pattern identification apparatus according to claim 5, wherein said storage section stores data related to an area of each of said plurality of kinds of patterns contained in said image, and said first area is determined based on data related to said areas stored in said storage section (See for example, Figs. 6, 8, and 15).

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With regard to claim 7, claim 1 encompasses the limitation of this claim, and rejected the same as claim 1. Thus, argument analogous to that presented above for claim 1 is applicable to claim 7.

Claims 11 and 12 are rejected the same as claims 5 and 6 respectively. Thus, arguments similar to those presented above for claims 5, and 6 above are respectively applicable to claims 11 and 12.

Claims 13 and 15 are rejected the same as claim 1 except claims 13 and 15 are method claims. Thus, argument similar to that presented above for claim 1 is applicable to claims 13 and 15.

With regard to claim 14, the pattern identification method according to claim 13, further comprising an image pick-up step provided between said first step and said second step for obtaining said image by picking up said image by means of an image pick-up device (Item 50 or 52, in Fig. 5).

With regard to claim 16, the pattern identification method according to claim 13, wherein said image contains any of a plurality of kinds of different patterns, i.e., ridge, valley, etc, and said plurality of kinds of different patterns are stored as predetermined patterns in said first step (See for example, col. 1, line 60 through col. 2, line 2), and at least said second through fourth steps are repeated for each of said plurality of kinds of different patterns (See for example, the looping operation shown in Fig. 14).

Claim 17 is rejected the same as claim 1. Thus, argument similar to that presented above for claim 1 is applicable to claim 17. Driscoll further discloses a pattern identification program

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stored on computer-readable medium for identifying a predetermined pattern contained in an image, wherein said program is executed by a computer (See for example, item 50, in Figure 5).

With regard to claim 18, the pattern identification program according to claim 17, further comprising an image pick-up step provided between said first step and said second step for obtaining said image by picking up said image by means of an image pick-up device, said image pick-up step being executed by said computer

Claim 19 is rejected the same as claim 1. Thus, argument similar to that presented above for claim 1 is applicable to claim 19.

Claim 20 is rejected the same as claim 16. Thus, argument analogous to that presented above for claim 16 is applicable to claim 20.

Allowable Subject Matter

4. Claims 3-4 and 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. None of the prior art of record teach or fairly suggest wherein the data related to said predetermined pattern stored in said storage section comprises characteristic data representative of horizontal and vertical characteristics in the predetermined pattern, the first collation section comprises a first conversion section for converting image data in said first area into characteristic data representative of horizontal and vertical characteristics, and compares and collates said characteristic data converted by the first conversion section with the characteristic data of the predetermined pattern, and the second collation section comprises a second conversion section for converting image data in the second area into characteristic data

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representative of horizontal and vertical characteristics, and compares and collates the characteristic data converted by the second conversion section with the characteristic data of the predetermined pattern. It is for this reason and in combination with all of the elements of the base claims that claims 3-4 and 9-10 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The reasons for allowability of objected claims 2 and 8 presented in the last Office Action are not repeated herein, but are incorporated by reference.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G. MARIAM whose telephone number is 571-272-7394. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BHAVESH M. MEHTA can be reached on 571-272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DANIEL MIRIAM
PRIMARY EXAMINER

July 8, 2005